

Work Order ID 74108

Page 1

Wednesday, September 21, 2011 2:55:41 PM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 9/21/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 10/7/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: 

Date: 11-09-21

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2750

F

D3492

C

100

0.00



DOCUMENT CONTROL

DC

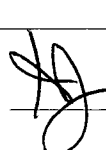
0.00

Memo

Document Control

Photocopy blue file and type labels per PPP D350-636-011 CHG 006

Sulcoliz

 for M.L.T. 11-10-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Page 2

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Sequence ID/
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Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

0.00

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

9- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10- Open up holes of Detail A to 0.297" (total of 2 holes per side)

JB 11/09/26

W/O:		WORK ORDER CHANGES					
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Page 3

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004A/R Aluminum Rod batch: ☐ M118736

12-Grind welds flush as per Dwg D2750

BB 11/10/04
BB 11/10/05

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

S 11/10/05

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S 11/10/05

(XU)

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Page 4

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

Jh

11/10/05

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

DP

11-10-5

W/O:		WORK ORDER CHANGES					
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Page 5

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

0.00



Skidtubes

0.00

Skidtubes

Memo

Skidtubes

1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side)
as per dwg D2750.2-Open up holes of Detail B to 0.750" (total of 4 holes per side)
as per dwg D2750.

3- Open float hole to 0.500" (4 per side)

4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750
(welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐ ☐ ☐ Sikaflex-291

batch: #10 110893

exp. date: 12/04/05

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004
(welding instructions on sheet 8)A/R ☐ ☐ ☐ Aluminum Rod

batch: M118736

9- At section AJ-AJ drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

DL 11/10/05

BE 11/10/05
DL 11/10/06

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Wednesday, September 21, 2011 2:55:41 PM

Page 6

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Customer:

Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D2750

11-10-07

12-Debur holes

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

8/11/10/07

180



QC

Quality Control

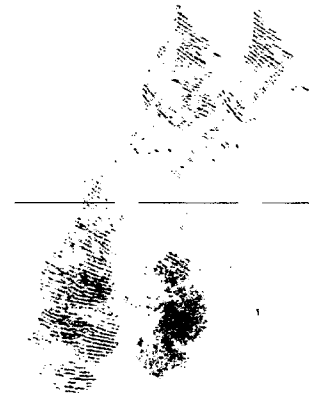
QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

8/11/10/07



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Wednesday, September 21, 2011 2:55:41 PM

Page 7

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Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:50
320°F
8:20

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

1X4 m/f 11/10/11

1 BR 11-10-11

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Wednesday, September 21, 2011 2:55:41 PM

Page 8

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Cust Item ID:

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

1- Install inserts as per Dwg D2750

1 BL 11-10-11

230

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3" batch: N/A

3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH: 118393

EXP DATE: 12-5

4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube batch: 110348

5-Coat all exposed fasteners with "LPS Procyon" batch: 114596

1 BL 11-10-11

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Page 9

Wednesday, September 21, 2011 2:55:41 PM

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00		8/10/11		XU			
Quality Control									
250	Pick Kit	0.00							
Packaging	Memo	0.00							
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
QC	Memo	0.00		8/10/12		70			
Quality Control	*****ensure antiseize is on AN8C21A bolts*****								

W/O:		WORK ORDER CHANGES					
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Wednesday, September 21, 2011 2:55:41 PM

Page 10

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

270

0.00



Packaging

Packaging

Memo

0.00

Packaging

Package as per PPP D350-636-011

Me - I

280

0.00



QC

QC21- Final Inspection - Work Order Release

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
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Wednesday, September 21, 2011 2:55:47 PM





[illegible]

Required Date: 10/7/2011

Required Qty: 1.00

Comments:

IPP Rev:I	02.09.25	Rearranged procedure steps	KJ
IPP Rev:J	06-03-23	As per Rev D	JLM
IPP Rev:K	06-07.13	As per dsi9343	EC
IPP Rev:L	07-07-28	Added SS Wearplates(Rev E)	JLM Verf:EC
IPP Rev:M	08-04-22	update steps 4, 13	DD verified by:EC
IPP Rev:N	08-09-23	revF as per dwg	DD verified by:ec
IPP Rev:O	09-02-06	apply antiseize on AN8C21A bolts as per PAR09-010	
DD verf:EC			IPP Rev:P 10.06.22 revise
seq110 DD verf:EC			IPP Rev:Q 10.10.01 as per IIN revH
DD verf:EC			

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3492-1  Plug		Manufactured	No			230	Each	8.0000	8	8	8	BR 11-10-11	
					73402.								
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP		8							
					69531	8							
D3492-3  Plug		Manufactured	No			230	Each	85.0000	8	8		BR 11-10-11	
													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP		85				8			
					71838 ✓	76							
					72126	9							

W/O:		WORK ORDER CHANGES					
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Picklist Print

Wednesday, September 21, 2011 2:55:47 PM

Page 2

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Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased No

230 Each

151.0000 8 8



O-RING



11-10-11

Location

Loc Qty

Loc Code

FP 137

117460 8

118077 1

118612 128

FP-A 14

110915 14

NAS1149D0863J

Purchased No

250 Each

144.0000 2 2



WASHER



11-10-11

Location

Loc Qty

Loc Code

ST298 144

118078 144

D2744

Manufactured No

110 Each

73.0000 1 1



Cap



11-10-11

Location

Loc Qty

Loc Code

LG002 17

62715 1

70881 16

WA 56

71861 56

Wednesday, September 21, 2011 2:55:47 PM

Shop Packet Print

Page 2

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Wednesday, September 21, 2011 2:55:47 PM

Page 3

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Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D2600-3-BENT

Manufactured

No

110

Each

9.0000

1



Extrusion Bent



1

B 11/09/26

Location

Loc Qty

Loc Code

LG

9

66875

8

72153

1

D2743

Manufactured

No

160

Each

166.0000

8



Crossbolt Spacer



8

B 11/10/06

Location

Loc Qty

Loc Code

LG

108

69818

5

71839

103

LG001

58

67766

4

68251

54

D2739

Manufactured

No

160

Each

9.0000

1



350 I Beam



1

Location

Loc Qty

Loc Code

LG

9

70823

1

72154

4

72155

4

D3490-3

Manufactured

No

160

Each

10.0000

4



Cross Bolt Spacer



4

B 11/10/06

Location

Loc Qty

Loc Code

LG

10

70768

10

4

Wednesday, September 21, 2011 2:55:47 PM

Shop Packet Print

Page 3

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Wednesday, September 21, 2011 2:55:47 PM

Page 4

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Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-1 Manufactured No

160 Each

82.0000 4 4



Cross Bolt Spacer



BE 11/10/11

Location Loc Qty Loc Code

LG 80

67773 5

69823 10

71841 65

LG001 2

62450 2

4

ALS4-1032-225 Purchased No

220 Each

1,862.000 38 38



Insert



BL 11-10-11

Location Loc Qty Loc Code

ST282 1862

110768 62

118386 860

118966 940

38.

D3793-3 Manufactured No

230 Each

17.0000 1 1



Wearshoe



BL 11-10-11

Location Loc Qty Loc Code

FP018 17

70813 5

72160 12

1

Wednesday, September 21, 2011 2:55:48 PM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:48 PM

Page 5

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased

No

230

Each

120.0000

1

1



BK 11-10-11

BOLT

Location

Loc Qty

Loc Code

FP

84

11751N ✓

18

118286

66

FP-A

1

115960

1

ST345

34

117834

34

ST346

1

114442

0

115188

0

115960

1

D3793-1

Manufactured

No

230

Each

25.0000

1

1



BK 11-10-11

Wearshoe

Location

Loc Qty

Loc Code

FP001

14

73422 ✓

14

FP018

11

70781

11

Wednesday, September 21, 2011 2:55:48 PM

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:48 PM

Page 6

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3488-041

Manufactured No

230 Each

21.0000 1 1



Blade Fitting Assembly, LH



BL 11-10-11

Location

Loc Qty

Loc Code

FP 11
69903 ✓ 11
FP007 1
61689 1
FP008 9
67788 1
71887 8

1
1
1
1
1
1
1

D3794-3

Manufactured No

230 Each

8.0000 1 1



Gasket



BL 11-10-11

Location

Loc Qty

Loc Code

FP018 8
70812 ✓ 8

1
1

AN6C44A

Purchased No

230 Each

111.0000 4 4



BL 11-10-11

BOLT

Location

Loc Qty

Loc Code

FG 2
103964 2
ST344 109
118332 ✓ 19
118387 50
118985 40

4
4
4
4
4

Wednesday, September 21, 2011 2:55:48 PM

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Page 6

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Wednesday, September 21, 2011 2:55:48 PM

Page 7

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased No

230 Each

86.0000

1

1



NUT



BK 11-10-11

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

13

118077 ✓

13

ST303

72

115884

0

118354

22

118614

50

D3536-25

Manufactured No

230 Each

12.0000

1

1



Gasket



BK 11-10-11

Location

Loc Qty

Loc Code

FP012

12

70780 ✓

12

D3631-1

Manufactured No

230 Each

163.0000

8

8



Washer



BK 11-10-11

Location

Loc Qty

Loc Code

ST072

163

68062 ✓

163

8

Wednesday, September 21, 2011 2:55:48 PM

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

Wednesday, September 21, 2011 2:55:48 PM

Work Order ID: 74108



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3791-1 Manufactured No

230 Each

19.0000 1 1



Wearplate



BL 11-10-11

Location Loc Qty Loc Code

FP017 7

62239 2

69282 ✓ 5

FP17 12

72158 12

AN960C10L NAS1149C0332 ✓ Purchased No

230 Each

0.0000 38 38



washer

118 354.



38. BL 11-10-11

D2745 Manufactured No

230 Each

221.0000 8 8



Bushing



BL 11-10-11

Location Loc Qty Loc Code

FP-A 59

69529 ✓ 59

ST023 162

71835 162

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:49 PM

Page 9

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

230

Each

1,058.000

34

34



Bolt



BR 11-10-11

Location

Loc Qty

Loc Code

FP-A

7

115835

7

ST350

1051

116419

28

117343

352

117764

169

117872

2

118451

500

34.

D3537-1

Manufactured

No

230

Each

190.0000

3

3



Wearpad



BR 11-10-11

Location

Loc Qty

Loc Code

FP001

180

72124

60

73394

60

73395

60

3

FP016

3

68944

0

70687

3

FP017

7

69817

5

70686

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:49 PM

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0832R

Purchased

No

230

Each

352.0000

1

1



WASHER



BL 11-10-11

Location

Loc Qty

Loc Code

FP-B

23

114915 ✓

23

ST297

329

114915

329

AN3C6A

Purchased

No

230

Each

280.0000

4

4



BOLT



BL 11-10-11

Location

Loc Qty

Loc Code

FP-A

1

111982

1

ST351

279

111982

2

116419

23

116549

2

116704

12

117619

10

117688

1

117872

29

118422 ✓

200

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:49 PM

Page 11

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased No

230 Each

140.0000 8 8



BL 11-10-11

O-RING

Location

Loc Qty

Loc Code

FP 55

117291 2

117887 53

FP-A 85

116582 5

118384 ✓ 80

8

D3535-25

Manufactured No

230 Each

22.0000 1 1



BL 11-10-11

Wearshoe

Location

Loc Qty

Loc Code

FP018 22

62233 ✓ 1

69743 ✓ 8

73424 13

1

D3794-1

Manufactured No

230 Each

17.0000 1 1



BL 11-10-11

Gasket

Location

Loc Qty

Loc Code

FP010 17

70779 ✓ 17

1

Wednesday, September 21, 2011 2:55:49 PM

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Page 11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:49 PM

Page 12

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

MS21043-6

Purchased

No

230

Each

533.0000

4

4



NUT



11-10-11

Location

Loc Qty

Loc Code

FG

20

103693

20

ST301

513

112314 ✓

303

117887

10

118384

200

4

D3493-1

Manufactured

No

250

Each

69.0000

2

2



Washer



[Signature]

Location

Loc Qty

Loc Code

ST062

69

70697

31

71846

38

70697

MS21083C8

Purchased

No

250

Each

86.0000

2

2



NUT



11/14/12 (1)

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

13

118077

13

ST303

72

115884

0

118354

22

118614

50

118354

Wednesday, September 21, 2011 2:55:50 PM

Shop Packet Print

Page 12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:55:50 PM

Page 13

Work Order ID: 74108

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C21A

Purchased

No

250

Each

81.0000

2

2



BOLT

Location

Loc Qty

Loc Code

ST345

81

118045

31

118758

50

118045

NAS1515H3L

Purchased

No

230

Each

156.0000

4

4



WASHER

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

116

113362

57

118686

59

4.

D2741

Manufactured

No

250

Each

33.0000

1

1



Blade, 350 Skidtube

Location

Loc Qty

Loc Code

ST466

33

70667

33

70667

D3532-1

Manufactured

No

250

Each

15.0000

2

2



Spacer

Location

Loc Qty

Loc Code

ST065

15

69895

15

69895

Wednesday, September 21, 2011 2:55:50 PM

Shop Packet Print

Page 13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN8C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 74108

110921

RELEASED

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H3L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEC 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.16		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. **D2750** REV. F
SHEET 1 OF 11
TITLE **350 SKIDTUBE ASSEMBLY** SCALE NTS

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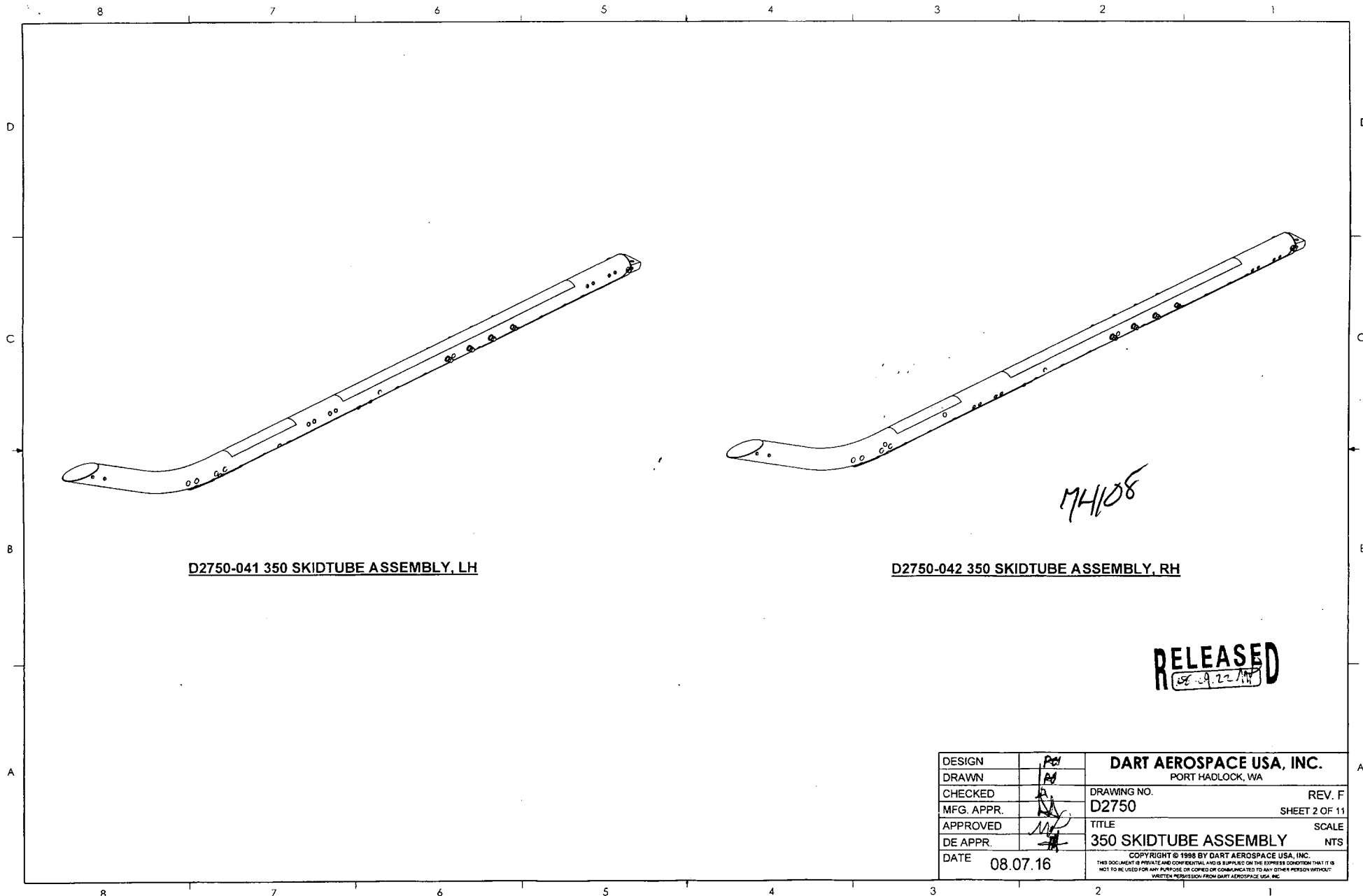
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



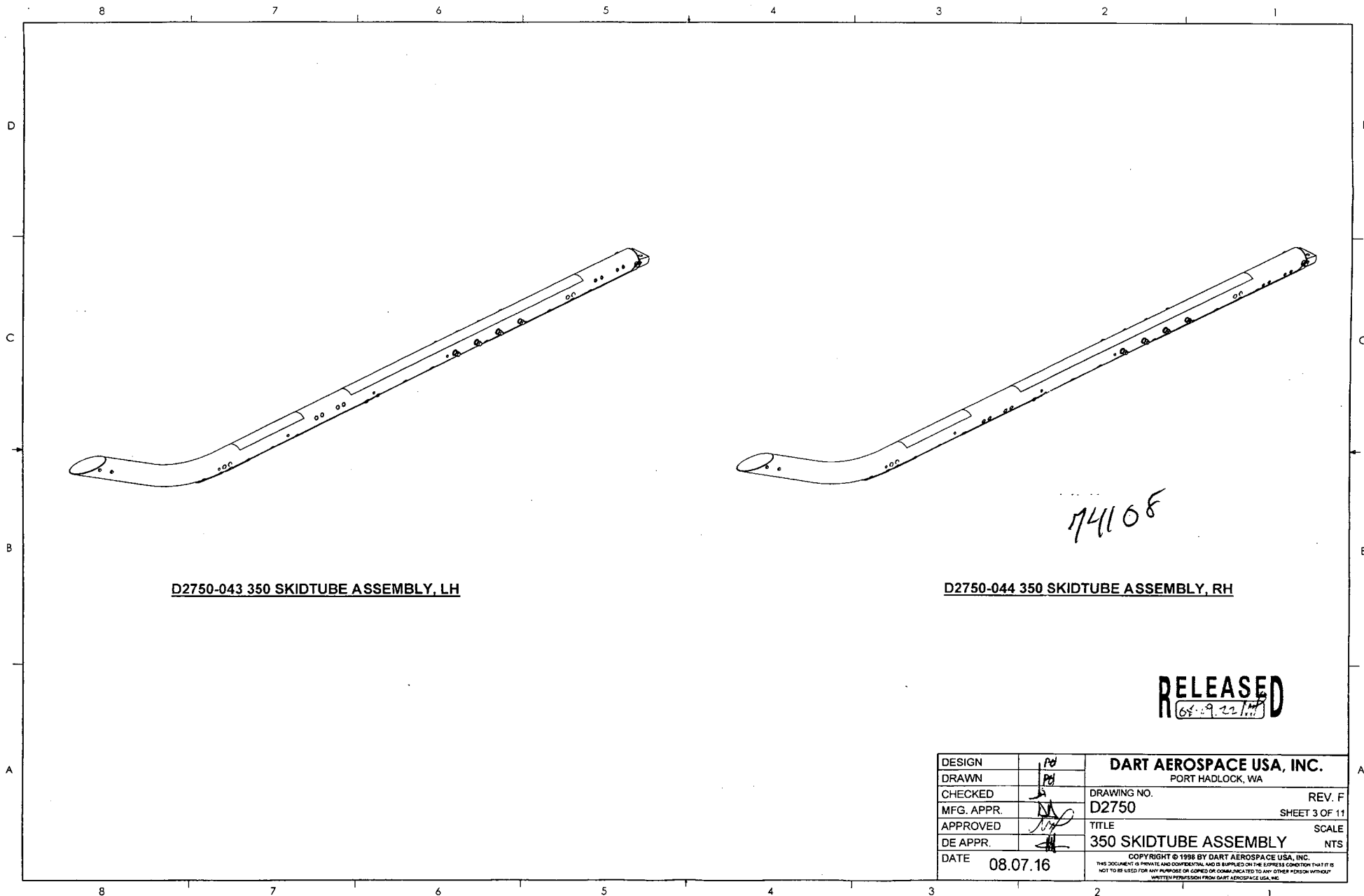
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



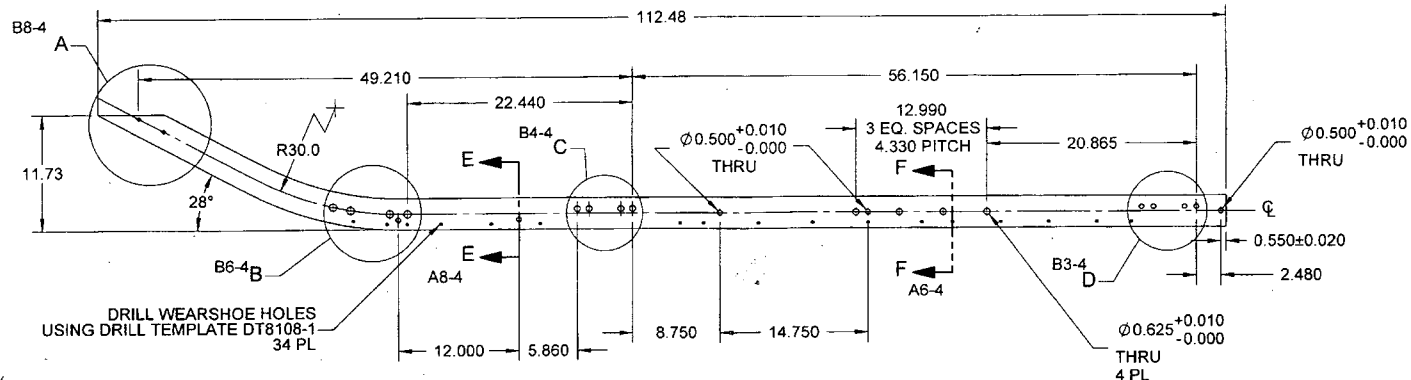
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

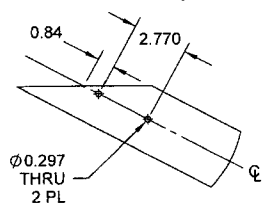
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

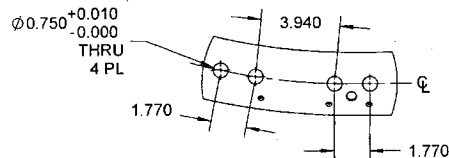
NOTE: Date & initial all entries



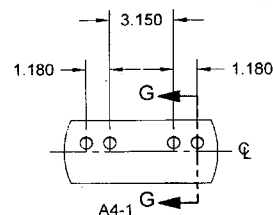
D2750-1 LH SKIDTUBE



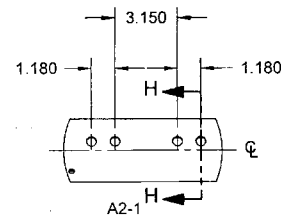
DETAIL A
SCALE 2X



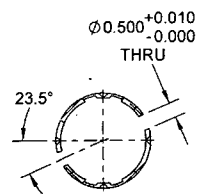
DETAIL B
SCALE 2X



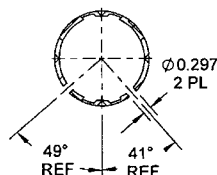
DETAIL C
SCALE 2X



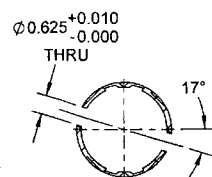
DETAIL D
SCALE 2X



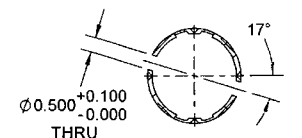
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

DESIGN	IP	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	IP		
CHECKED	IP	DRAWING NO. D2750	REV. F
MFG. APPR.	IP		SHEET 4 OF 11
APPROVED	IP	TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS
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14108

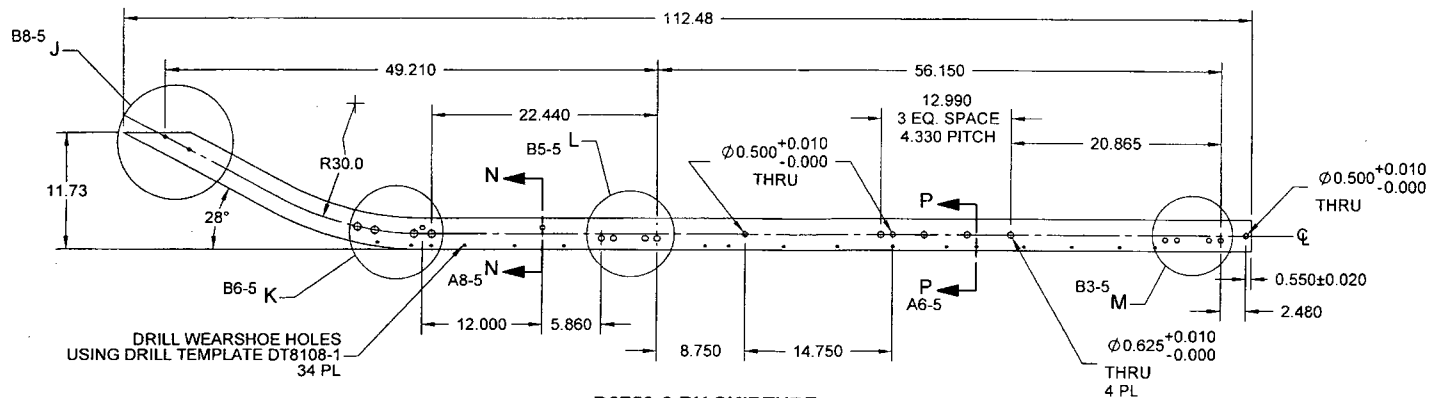
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

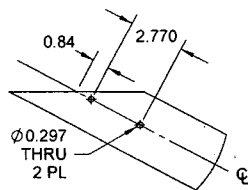
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

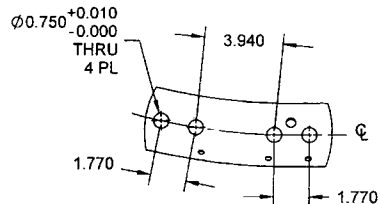
NOTE: Date & initial all entries



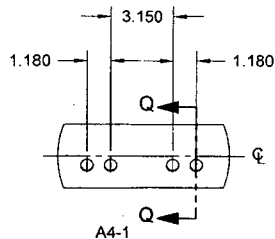
D2750-2 RH SKIDTUBE



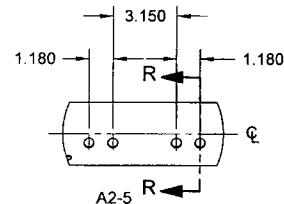
DETAIL J
SCALE 2X



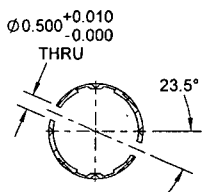
DETAIL K
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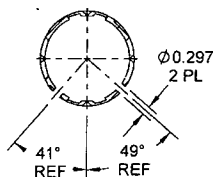
DETAIL L
SCALE 2X



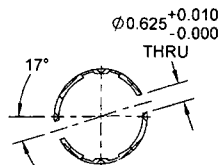
DETAIL M
SCALE 2X



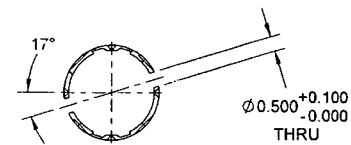
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

174108

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DESIGN	REV	DART AEROSPACE USA, INC.	
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MFG. APPR.		SHEET 5 OF 11	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

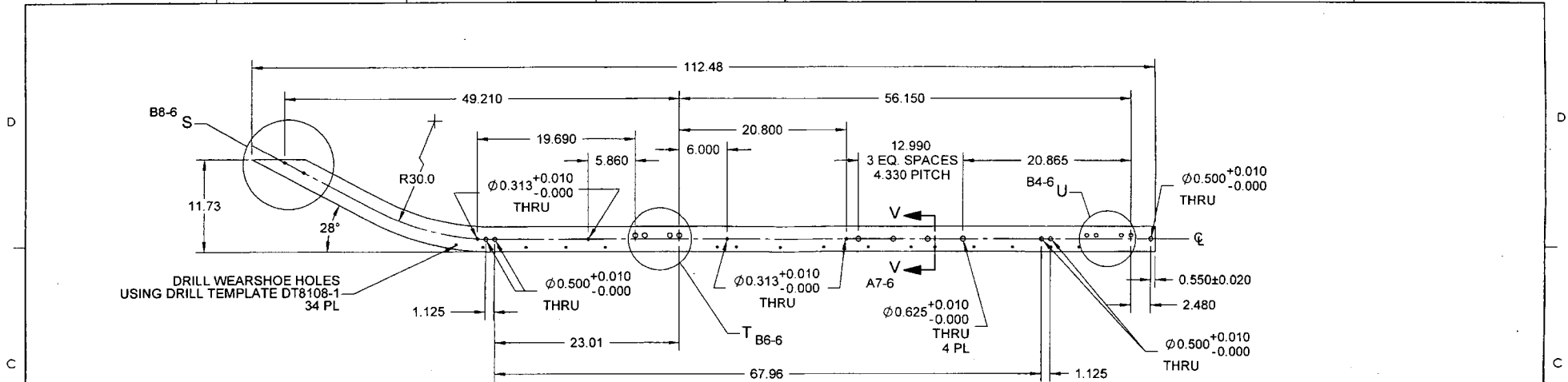
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

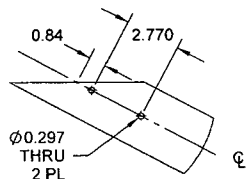
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

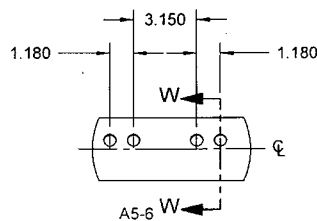
8 7 6 5 4 3 2 1



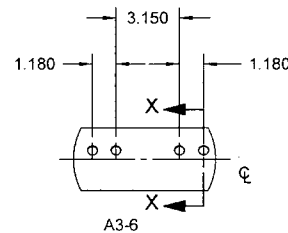
D2750-3 LH SKIDTUBE



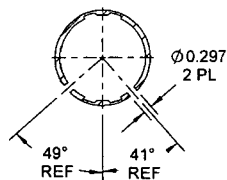
DETAIL S
D8-6
SCALE 2X



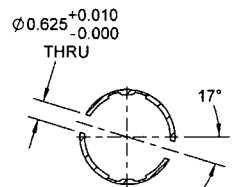
DETAIL T
C5-6
SCALE 2X



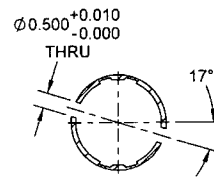
DETAIL U
D3-6
SCALE 2X



SECTION V-V
C4-6
SCALE 3X, 17 PL



SECTION W-W
B6-6
SCALE 3X, 4 PL



SECTION X-X
B4-6
SCALE 3X, 4 PL

741188

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MFG. APPR.		D2750	SHEET 6 OF 11
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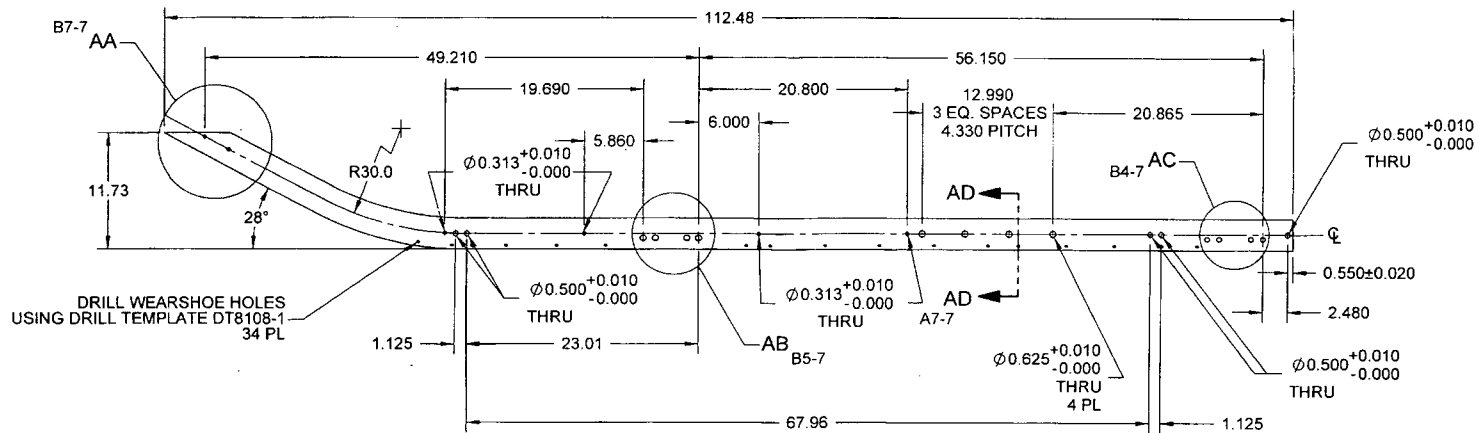
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

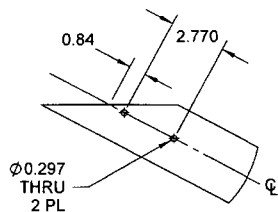
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

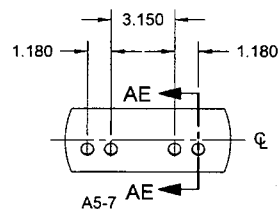
NOTE: Date & initial all entries



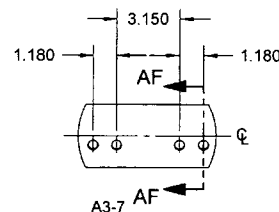
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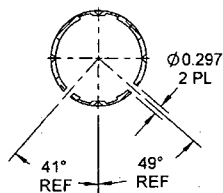
DETAIL AA
SCALE 2X



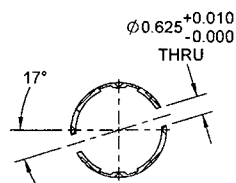
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SCALE 2X



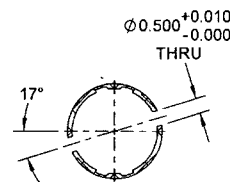
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

74108

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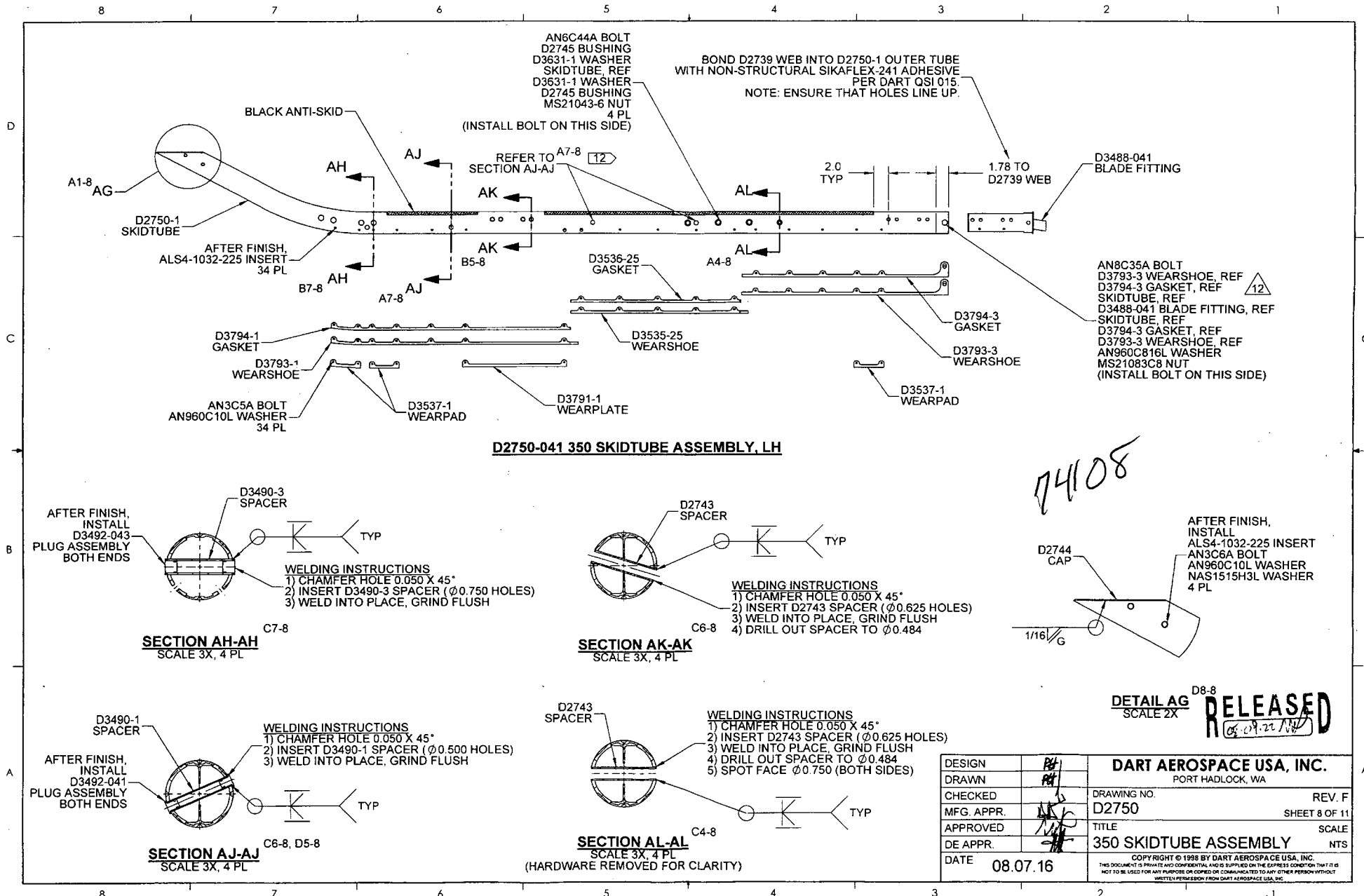
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

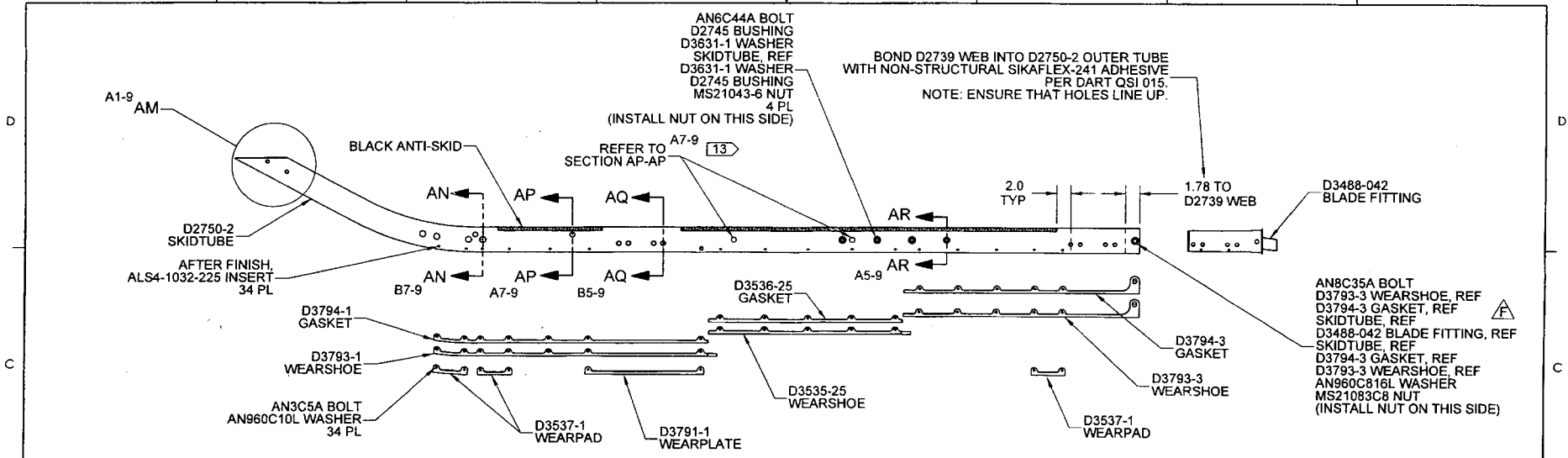
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

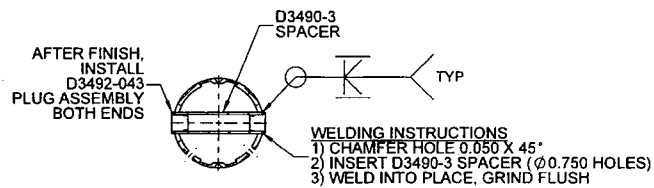
NOTE: Date & initial all entries

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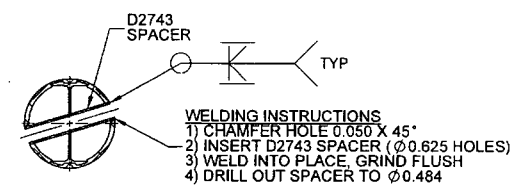


D2750-042 350 SKIDTUBE ASSEMBLY, RH

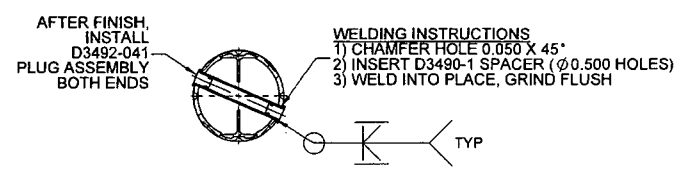
74108



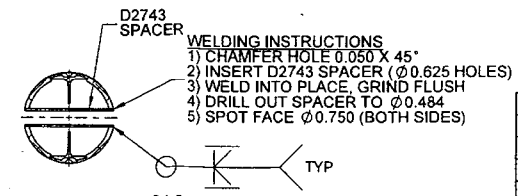
SECTION AN-AN
SCALE 3X, 4 PL



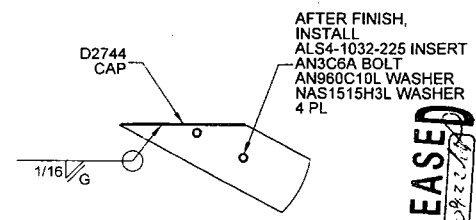
SECTION AQ-AQ
SCALE 3X, 4 PL



SECTION AP-AP
SCALE 3X, 4 PL



SECTION AR-AR
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)



DETAIL AM
SCALE 2X

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08-09-2018

DESIGN	PH	DART AEROSPACE USA, INC.	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 9 OF 11
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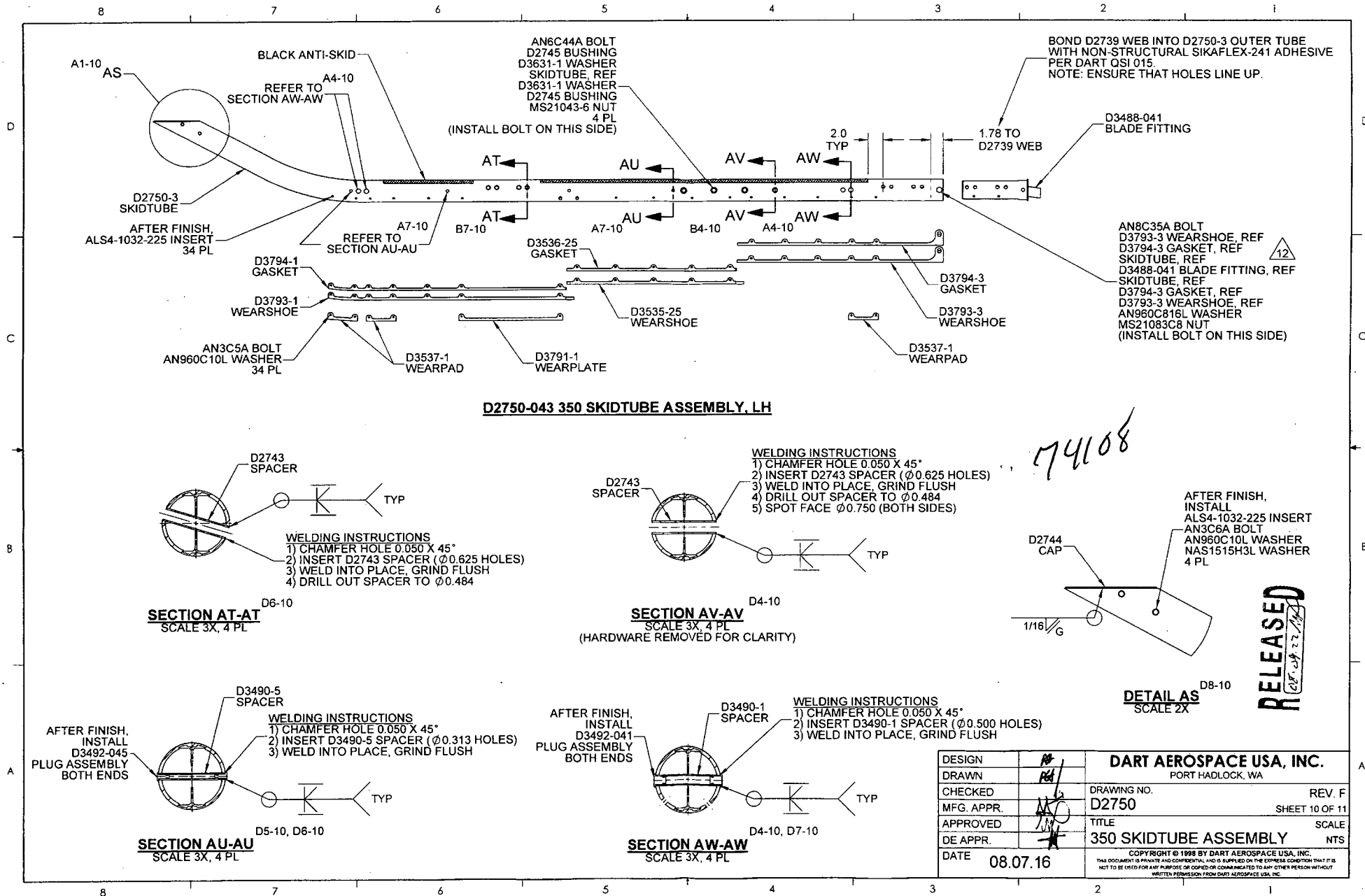
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 265

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 714270
Part number: J 350 636 015
Description: 350
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Sal Luy Date of Test Coupon 11.09.06
Welder Barclay Elliott Date of Test Coupon 11.09.06

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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